

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
Andreas Jauss et al.

Patent No. 7,480,556

Application No.: 10/597,260

Confirmation No.: 8430

Filed: July 19, 2006

Art Unit: 3747

For: INTERNAL COMBUSTION ENGINE FOR  
OPERATION WITH TWO DIFFERENT KNOCK  
RESISTANT FUELS

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Examiner: Hieu T. Vo

**LETTER OF RECORD**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Madam:

Applicant hereby requests the following prior art be make of record in this patent.

JP 2001271682

Nissan Motor Co. Ltd.

October 5, 2001

Dated: April 1, 2009

Respectfully submitted,

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## PATENT ABSTRACTS OF JAPAN

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**F02D 43/00**  
**F02D 45/00**

(21) Application number: **2000083713**(71) Applicant: **NISSAN MOTOR CO LTD**(22) Date of filing: **24.03.00**(72) Inventor: **MIURA SO**

(54) INTAKE CONTROL DEVICE FOR ENGINE

consumption and exhaust emission are improved.

(57) Abstract:

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PROBLEM TO BE SOLVED: To improve fuel consumption and exhaust emission by increasing maximum torque when low octane number fuel is used, in an engine with a high compression ratio.

SOLUTION: When high octane fuel is used, valve timing (closing timing of an intake valve) is controlled, so as to sufficiently increase air quantity and a compression ratio as in a conventional way, since a knocking limit is large and to control ignition timing shown at point A. When regular fuel is used, maximum torque can be increased and also an exhaust temperature is decreased by controlling valve timing (closing timing of the intake valve) so as to decreased air quantity and the compression ratio and control ignition timing shown at point B which is advanced as compared with the conventional ignition timing, and thereby also on rich control of an air-fuel mixture ratio becomes unnecessary and fuel

